

Remarks

The Nonfinal Office Action mailed on November 3, 2006 has been carefully reviewed and considered. Claim 5 has been amended, and new claims 23 and 24 have been added, to more clearly define the invention. Claim 12 has been amended for purely formal reasons to correct obvious typographical errors. No change in the scope of claim 12 is believed to result and, accordingly, the scope of equivalents under the Doctrine of Equivalents is believed to be unaffected by the subject amendments.

In light of these changes, Claims 5-24 are pending in the application. Of these, claims 20 and 21 are indicated as allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant thanks the Examiner for this indication of allowability with respect to claims 20 and 21.

Applicant also thanks the Examiner for the acknowledgment of Applicant's claim for foreign priority. A Submission of Foreign Priority Document, including a certified copy of Chinese patent application number 200420020002.9 filed on February 5, 2004 will be submitted in due course under separate cover. The specification is herewith amended to reflect the priority claim.

Claims 5-7 and 9-11 stand rejected under 35 USC §102(b) over United States patent number 4,542,883 to Rutzki (*hereinafter* Rutzki).

The present application relates to hand lever for a binding machine.

Claim 5 recites, in part:

A binding machine comprising: ... a torque indicator, said torque indicator being adapted to indicate a magnitude of said applied torque by a deflection of a portion of said handle, said deflection increasing against a substantially continuous spring force in relation to an increase in said magnitude. Emphasis added.

The Rutzki reference relates to a device for tensioning straps. In the device described by Rutzki,

[T]his mechanism has a pin joined rigidly with the outer part of the ratchet lever and having at one point a polygonal cross section onto which a sleeve is seated so that it may be moved in the length direction. The sleeve is pre-loaded in one direction and its end facing in the direction of such pre-loading has a tooth means kept in mesh with an opposite tooth means therefor on a counter-element rigidly joined on the inner part of the ratchet lever so that on going up over the limiting or critical torque value the two parts of the ratchet lever give way and are folded in relation to each other insofar as one of the tooth means is moved in relation to the other. Emphasis added. Column 2, lines 11-24.

Applicant respectfully submits that Rutzki does not teach or suggest a "deflection increasing against a substantially continuous spring force in relation to an increase in said magnitude." To the contrary, as noted in the Office Action, Rutzki describes a mechanism in which "... once the turning force of the ratchet

lever 42 acting on the strap drum 28 is higher than a given level, the ratchet lever 42 will give way and be folded about the axis M-- M, because in this event the force will be over the value F_m , and there will be slip and the coupling or clutch formed by the tooth means," (emphasis added). Column 9, lines 24-33. Accordingly, it is clear that "once the turning force of the ratchet lever... is higher than a given level, the ratchet will give way and be folded..." without any "substantially continuous spring force," as claimed.

Therefore, it is clear that Rutzki does not teach or suggest every feature of the invention as claimed, and that the rejection of claim 5 under 35 USC §102(b) over Rutzki is overcome.

Claims 6, 7, and 9-11 each depend, directly or indirectly, from claim 5 and incorporate every limitation thereof. Accordingly, for at least the reasons above in relation to claim 5, the rejections of claims 6, 7 and 9-11 under 35 USC §102(b) over Rutzki are also overcome. Applicant respectfully submits that allowance of claims 5-7 and 9-11 is therefore in order.

Claims 12, 13 and 16-19 stand rejected under 35 USC §103(a) over Rutzki in further view of United States patent number 6,769,155 to Hess et al., (*hereinafter* Hess).

Claim 12 recites:

A binding machine comprising: ... a helical spring, said helical spring being disposed between said first and second side members, said helical spring being adapted to provide a monotonically increasing force in

opposition to a pivotal displacement of said first second handle portion with respect to said second handle portion.

In contrast, the Hess reference relates to a:

[t]ensioning/relaxing elements for a tensioning/relaxing device that comprises... at least one non-positive and positive element... which closely surrounds... [a] shaft, wherein the first non-positive and positive element, as a tensioning element, is, on one side firmly connected with a part that may be moved relative to [a] base, and, on the other side, may be actuated with a variable and continuous pre-stress by means of a first actuating element and wherein the second non-positive and positive element is firmly connected, on one side with the base, and, on the other side, with a variable and continuous pre-stress by way of a second actuator....

Emphasis added. Column 6, lines 25-38.

Hess shows in figure 4 that a "lashing line was laid around the shaft 4, which is embodied here as an uptake and feed-out shaft" (column 4, lines 30-33) which one of skill in the art would readily understand corresponds to the strap drum 28 (column 6, lines 30) of Rutzki. There is nothing in Hess to teach or suggest any relationship between the joint of figure 4 of Hess and the mechanism 55 of Rutzki. Rather, Hess teaches a completely different placement of the "lashing line" than that proposed in the Office Action. Accordingly, Hess teaches directly away from the proposed, combination of Rutzki and Hess.

Even if, *arguendo*, the proposed combination were permissible, the combination would not teach or suggest the present invention. The spring of

Hess is expressly adapted to "'block' the shaft..." (Column 3, line 18) of Hess using the "well-known rope friction principle, in which the friction coefficients of the shaft and the spring's seat engaging surface are determinant," (column 2, lines 31-33). According to Hess, "spring 6, which lies close to shaft 4, is dimensioned in such a way that it blocks the latter, which is given, in the case of a given tension force, as a result of a number of spring windings 6' that are selected, as well as their seat-engaging surface on the shaft." Column 3, lines 1-6.

Hess goes on to state:

In order to achieve high friction, the spring winding exhibits, to good advantage, a square or rectangular cross-section. It is essential that at least the spring winding's seat-engaging surface exhibit as flat a surface as possible for establishing contact with shaft 4. Emphasis added. Column 2, lines 34-38.

Applicant respectfully submits that Hess's requirement that there should be "high friction" between the spring and the shaft teaches directly away from any combination of the spring of Hess with the mechanism 55 of Rutzki. Further, in light of this "high friction" the spring of Hess could not be used in the present invention, as claimed. Accordingly, in the absence of impermissible hindsight, one of skill in the art would not arrive at the present invention by the combination of Rutzki and Hess.

Therefore, Rutzki and Hess, whether taken alone or in combination, do not teach every feature of the subject claim. Accordingly, the rejection of claim 12 under 35 USC §103(a) over Rutzki in view of Hess should be withdrawn.

Claims 13 and 16 -19 each depend, directly or indirectly, from claim 12 and incorporate every feature thereof. Accordingly, the rejections of claim 13 and 16 -19 under 35 USC §103(a) over Rutzki in view of Hess should be withdrawn for at least the reasons given above in relation to claim 12. Applicant respectfully submits that claims 12, 13 and 16-19 are in immediate condition for allowance.

Claims 20 and 21 also depend indirectly from claim 12 and include every feature thereof. Claim 20 and 21 have been indicated to be allowable, subject to amendment to include every limitation of claim 12 and all intervening claims. In light of the arguments presented above, the requirement for such amendment is believed to be moot, since claim 12 has been shown to recites features not found in the prior art of record. Accordingly, applicant respectfully solicits immediate allowance of claims 20 and 21 as presently drafted.

Claim 22 stands rejected under 35 USC §103(a) over Rutzki in view of Hess.

Claim 22 recites in part:

A ratchet belt tension device, said ratchet belt tension device comprising:
... a helical spring... wherein said helical spring is adapted to urge said first longitudinal axis into a substantially coplanar relation with respect to said second longitudinal axis...

Applicant respectfully submits that the helical spring of Hess is in no way "adapted to urge [a] first longitudinal axis into a substantially coplanar relation with respect to [a] second longitudinal axis." Rather, the Hess spring is adapted to "achieve high friction" (column 2, line 34). As discussed above, the Hess spring is configured and positioned to achieve the "well-known rope friction principle, in which the friction coefficients of the shaft and the spring's seat engaging surface are determinant," (column 2, lines 31-33). Accordingly, there is nothing in Rutzki and Hess, whether taken alone or in combination to teach or suggest the claimed features of "... a helical spring... wherein said helical spring is adapted to urge said first longitudinal axis into a substantially coplanar relation with respect to said second longitudinal axis..."

As such, the rejection of claim 22 under 35 USC §103(a) over Rutzki in view of has is believed to be overcome. Withdrawal of the subject rejection is therefore respectfully requested.

New claims 23 and 24 have been added to more clearly describe the invention. In view of the remarks provided above, claim 23 and 24 are believed to be patentably distinguishable over the prior art now of record. Accordingly, claims 23 and 24 are in immediate condition for allowance. Such allowance is respectfully requested.

In light of the foregoing, all claims now in the application are believed to be in immediate condition for allowance. Therefore, the allowance of all claims and prompt passage of this application to issue is earnestly solicited.

No extension of time is believed to be required in the present response. If required, the Commissioner is hereby petitioned, under 37 C.F.R. § 1.136 (a), to extend the time for filing a response to an outstanding Office Action, or any communication filed in this application by this firm, by the number of months which will avoid abandonment under 37 C.F.R. § 1.135. The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to Deposit Account No. 50-3950 of Bergman & Song LLP, under Order No.: T1000-0001-P001

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned collect at (617) 868-8871 in Cambridge, Massachusetts.

Dated: MAR 05 2007

Respectfully submitted,

By 

Michael Bergman

Registration No.: 42,318

BERGMAN & Song LLP

PO Box 400198

Cambridge, MA 02140

617-868- 8870

Attorneys for Applicant